



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,094	10/25/2001	Steve Horvath	18360-233640	3388

826 7590 04/29/2003

ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

HERNANDEZ, OLGA

ART UNIT PAPER NUMBER

3661

DATE MAILED: 04/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,094

Applicant(s)

HORVATH ET AL.

Examiner

Olga Hernandez

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-53 is/are allowed.
- 6) ☒ Claim(s) 1-10, 13, 17, 23-26 and 39-42 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 14-16, 18-22, 27-38 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 543
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 41 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoder (5,111,400).

As per claim 41, Yoder discloses:

- comparing a track of a target aircraft with a track of an own ship aircraft (column 5, lines 30-32); and
- responsive, at least in part, to the track of the target aircraft being within a predetermined variation of the track of the own ship aircraft, displaying a closure indicator on the display screen (column 15, lines 18-21).

2. Claims 1, 2, 4, 39, 40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Stocker (4,197,538).

As per claims 1 and 42, Stocker discloses:

- a central processing unit (figure 1);
- a memory coupled to the processing unit (it is inherent for a processing unit to have any memory coupled to it); and
- a display screen coupled to the central processing unit, the central processing unit being configured for executing the steps of (figure 1);

Art Unit: 3661

- determining whether a target aircraft is within a predetermined monitoring zone (column 4, lines 40-43); and
- responsive, at least in part, to the target aircraft being within the predetermined monitoring zone, displaying a closure indicator on the display screen (column 6, lines 44-49).

As per claim 2, it is inherent to no display anything if it is out of the range.

As per claim 4, it is inherent the monitoring zone being adjacent to the front of the own ship aircraft.

As per claims 39 and 40, it is inherent to no display an indicator of an aircraft that has landed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 10, 13, 17, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stocker (4,197,538) in view of Yoder (5,111,400).

As per claim 9, Stocker does not teach: comparing a track of a target aircraft with a track of an own ship aircraft; responsive, at least in part, to the track of the target aircraft being within a predetermined variation of the track of the owner ship aircraft, displaying a closure indicator on

Art Unit: 3661

the display screen. However, Yoder teaches: comparing a track of a target aircraft with a track of an own ship aircraft (column 5, lines 30-32); responsive, at least in part, to the track of the target aircraft being within a predetermined variation of the track of the own ship aircraft, displaying a closure indicator on the display screen (column 15, lines 18-21). Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to aid in the navigation, air traffic control, and collision avoidance aspects of aviation.

As per claim 10, it is obvious to one of ordinary skill in the art to not display anything if it is out of the range.

As per claims 13 and 17, Stocker does not teach whether the own ship aircraft is closing in, or receding from, the target aircraft. However, Yoder teaches whether the own ship aircraft is closing in, or receding from, the target aircraft (column 15, lines 18-21). Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to aid in the navigation, air traffic control, and collision avoidance aspects of aviation.

As per claims 23 and 25, it would have been obvious to one of ordinary skill in the art to use any means to indicating the proximity of another aircraft.

As per claim 26, Stocker does not teach a symbol representing the own ship aircraft if the own ship aircraft is receding from the target aircraft. However, Yoder teaches a symbol representing the own ship aircraft if the own ship aircraft is receding from the target aircraft (figures 10 and 11). Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to aid in the navigation, air traffic control, and collision avoidance aspects of aviation.

5. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stocker (4,197,538) in view Terpstra et al (5,313,396).

As per claims 3 and 8, Stocker does not teach allowing the user to modify at least one boundary of the predetermined monitoring zone. However, Terpstra teaches allowing the user to modify at least one boundary of the predetermined monitoring zone (column 13, lines 5-11). Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to provide alternatives to the user.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stocker (4,197,538) in view Ammar et al (5,945,926).

As per claim 5, Stocker does not teach the monitoring zone is a substantially cone-shaped segment of airspace. However, Ammar teaches the monitoring zone is a substantially cone-shaped segment of airspace (figure 1). Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to improve the obstacle detection-warning mode.

As per claim 6, Stocker does not teach an apex of the cone-shaped segment of airspace is positioned adjacent a front end of the Own ship aircraft, and wherein an axis of the cone-shaped segment of airspace is substantially collinear with a track of the Own ship aircraft. However, Ammar teaches it in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to improve the obstacle detection-warning mode.

As per claim 7, Stocker does not teach the cone-shaped segment of airspace is about 40 degrees. However, Ammar teaches it in figure 1. Therefore, it would have been obvious to one

Art Unit: 3661

of ordinary skill in the art to combine the aforementioned references in order to improve the obstacle detection-warning mode.

7. Claim 23-25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stocker (4,197,538) in view Hancock (5,179,377).

As per claims 23-25, Stocker does not teach a symbol representing the own ship aircraft if the own ship aircraft is closing in on the target aircraft. However, Hancock teaches it in figure

1. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned references in order to provide advisories on potential air traffic conflicts before the closest point of approach.

Allowable Subject Matter

8. Claims 44-53 are allowed.

9. Claims 11, 12, 14-16, 18-22, 27-38, 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

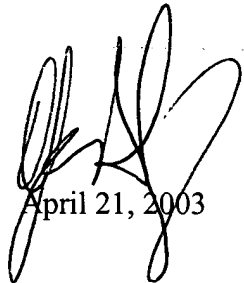
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Hernandez whose telephone number is (703) 305-0918. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on (703) 308-3873. The fax phone numbers

Art Unit: 3661


for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



April 21, 2003

Olga Hernandez
Examiner
Art Unit 3661



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600